

ADDITIONS AND CORRECTIONS

TO THE BAHAMA FLORA - III

William T. Gillis

Once again it is necessary to alter usage of plant names as they apply to the Bahama flora, and to make additions of previously unknown plants in the flora. In our preparation of a new flora of the Bahamas (including the Turks and Caicos Islands), Mr. George R. Proctor and I have been noting corrections of nomenclature as well as additions to the flora. I present here an additional 34 name changes and nine species not previously reported from the islands.

As in previous papers, my use of the term "Bahamas" should be construed in its geographical sense to include the Turks and Caicos Islands as well. For ease of reference, this paper will follow the order of species presented in Britton and Millspaugh's Flora (1920). For brevity that flora is designated as B & M in the text of this paper. When corrections to the B & M text are discussed, the figure in the lefthand margin refers to the page in B & M on which the taxon in question is discussed. Herbarium abbreviations are those of Index Herbariorum (Holmgren and Keuken, 1974).

I should like to acknowledge with appreciation Dr. L.I. Nevling, Jr., Chairman of the Botany Department at the Field Museum of Natural History in Chicago for making collections there available to me. I also acknowledge with appreciation the Director and Curator of the herbarium of the New York Botanical Garden for lending specimens for my study. I should also like to acknowledge travel funds granted by Hope College for visits to herbaria in undertaking this study. A portion of the field work on South Andros was supported by a grant from the Society of the Sigma Xi for a study of the Cuban element in the flora of Andros. I am grateful to the Director and staff of the herbarium of the Botanischer Garten, Berlin-Dahlem for their courtesy in permitting me to examine the *Rajania* type material.

A D D I T I O N S

POLYPODIACEAE

Thelypteris ovata St. John in Small. This fern was included in *Thelypteris normalis* in B & M, but Smith (1971) has recognized it as a distinct taxon. It is found on North Andros and New Providence Islands. Moreover, hybrids among Bahama species

have also been recorded by Smith: *T. augescens* X *normalis* and *T. augescens* X *ovata*.

GRAMINEAE

Brachiaria subquadrifaria (Trin.) Hitchc. has been found on Cat Island near Arthurs Town and is represented by collections of Roger Byrne (Nos. 353 and 538) at A. There was some speculation indicated on the herbarium specimens that the species may have been introduced in a sack of fertilizer; it is now established and is spreading.

BROMELIACEAE

Aechmea lingulata (L.) Baker. Dr. Robert R. Smith collected a specimen of this plant and sent it to the author for determination. I recognized it as a Bromeliad not previously known for the Archipelago, and sent it to Dr. Lyman B. Smith for determination. He and Dr. Robert W. Read made the determination and noted that this new station in the Bahamas is the first record for the species north of Puerto Rico. *R.R. Smith 3944* was collected in the middle of an island along the southern margin of North Granny Lake on San Salvador. The specimen in flower and young fruit was made 11 June 1975; it is deposited in the Hoysradt Herbarium of Hartwick College (HHH), Oneonta, New York. This record is another example of a San Salvador disjunct from either Hispaniola or Puerto Rico. I gratefully acknowledge assistance of Drs. Smith and Read in making the determination of this species, representing both a species and a genus new to the Bahama flora.

AMARANTHACEAE

Alternanthera canescens H.B.K. has recently been found in the West Indies (*Gillis & Proctor 12186* from Grand Turk). The types of two synonyms of this species name are from the West Indies, but the materials are too incomplete for certain identification. Since its discovery, it has been known for certain only from northern South America. The site on Grand Turk is as follows: north of Cockburn Town in *Acacia macracantha* scrub, growing in exceedingly dry clay under *Acacia*, near road to airport. Its collection history will be treated further in a forthcoming paper on the Gomphrenoideae of the Bahamas by Mears and Gillis (in press). I acknowledge the assistance of Dr. James Mears in determining the Grand Turk collection and for supplying other information to me.

PUNICACEAE

Punica granatum L. is cultivated on South Andros (near Kemps

Bay) and on Providenciales (near Blue Hills) where it escapes cultivation and enters the ruderal flora (Gillis 12376 and Gillis 12597).

EUPHORBIACEAE

Chamaesyce ophthalmica (Pers.) Burch. This species was collected for the initial Bahama Flora of 1920 from New Providence, Grand Bahama, Long, Inagua, and Cave Cay in the Exuma Chain. B & M placed specimens in *C. hirta* or *C. berteriana*, whereas earlier in the writings of Millspaugh such collections were labeled *Euphorbia oblitterata* or *E. pilulifera*. Derek Burch (1966) has correctly placed these materials in *C. ophthalmica* which will thus be an addition to the flora.

RUBIACEAE

Erithalis odorifera Jacq. On several islands of the Bahamas, there are populations of an *Erithalis* which heretofore have been considered to be large leaved representatives of *E. fruticosa*, the very common "black torch" of the West Indies and southern Florida. When one sees these populations adjacent to *E. fruticosa*, it is evident that two species are involved, the large leaved form being *E. odorifera*, not mentioned in B & M. Initially one might notice only the robust nature of *E. odorifera* as being distinctive: its larger leaves, flowers, fruits, and generally its taller growth form. Flower structure, however, is notably different as well. The flowers of *E. odorifera* have partially or completely reflexed petals; those of *E. fruticosa* do not. The flowers of *E. fruticosa* are fragrant at all times; those of *E. odorifera* are fragrant only up until 6 p.m. E.S.T. or approximately an hour or two before sunset. Populations of *E. fruticosa* exist on the southern islands with white fruits, but only black fruits are known for *E. odorifera*. I have collected materials of *E. odorifera* in the vicinity of Congo Town, South Andros (Gillis 12525). These populations have also been named *E. fruticosa* subsp. *odorifera* (Jacq.) Steyermark (1973), but I feel that their sympatry with typical *E. fruticosa* precludes this treatment until and unless some form of reproductive isolating mechanism is found.

The two species may be separated as follows:

Leaves 3-7.5 cm long; corolla 0.5 cm long or less;
anthers 1 mm long, shorter than the filaments.... *E. fruticosa*.

Leaves 10-13 cm long; corolla longer than 0.5 cm;
anthers 2 mm long or longer, as long or longer than
the filaments..... *E. odorifera*.

COMPOSITAE

Helianthus argophyllus T. & G. is cultivated extensively and allowed to seed itself as a dooryard plant and species of abandoned fields in the vicinity of Kemps Bay, South Andros (Gillis 12596). It is also becoming weedy in downtown Nassau. I acknowledge the assistance of Dr. Charles B. Heiser in making a determination of this collection for me.

Dyssodia tenuiloba (DC.) Rob. var. *tenuiloba* is known from a single collection from New Providence Island where it was an apparent weed (David Fairchild 2577, US). Very likely this was a chance collection made at a time when the plant had been temporarily established on the island. It has probably not continued to be part of the ruderal flora inasmuch as it has not ever been collected again (see Flyr, 1973 and Strother, 1969).

C O R R E C T I O N S

GRAMINEAE

16 *Syntherisma sanguinalis* → **DIGITARIA BICORNIS** (Lam.) R. & S. Earlier (Gillis and Proctor, 1975), we followed Ebinger (1962) for the change of name of this species in the Bahamas to *Digitaria ciliaris*. Recently, Dr. Richard W. Pohl, and F.J. Veldkamp examined *Digitaria* collections from the Bahamas at the Field Museum for us and made a number of nomenclatural changes. We follow Veldkamp's treatment (1973) for distinguishing *D. ciliaris* from *D. bicornis*. He noted that *D. bicornis* is pectinate and has a reported chromosome number of $2n = 72$. *Digitaria ciliaris*, on the other hand, is non-pectinate and has a reported chromosome number of $2n = 54$. *Digitaria sanguinalis* (L.) Scop. is yet another species, more temperate in its distribution.

16 *Valota insularis* → **DIGITARIA INSULARIS** (L.) Mez ex Ekman. Earlier we noted the transfer of this species from *Valota* as in B & M to *Trichachne* as treated by Hitchcock (1936). Henrard (1950), Hsu (1965), and Veldkamp (1973) believe that *Trichachne* is only "artificially separated" from *Digitaria*. Hsu found no differences in such critical characters as epidermis of the fertile lemma, structure and position of lodicules, nor in the shape of style-bases.

41 *Eragrostis amabilis*, in part → **ERAGROSTIS URBANIANA** Hitch.
Eragrostis prolifera → **ERAGROSTIS EXCELSA** Griseb.
 According to the treatment by Harley (1948), *Eragrostis amabilis* occurs on New Providence only (Britton & Brace 788), but the other specimens called *E. amabilis* by B & M actually represent *E. urbaniana*. Furthermore, the specimens called

E. prolifera from the Berry Islands are in fact *E. excelsa*. *Eragrostis excelsa* has pilose sheaths, is commonly papillose-pilose on the margins, on the collar, and occasionally elsewhere, and has open, loosely flowered panicles. *Eragrostis prolifera*, on the other hand, has glabrous sheaths or sheaths which are pilose only at the apex of the margins, and contracted, densely flowered panicles. *Eragrostis tephrosanthos* apparently does not occur in the Bahamas, despite its inclusion in B & M.

KEY TO BAHAMA *ERAGROSTIS* SPECIES

1. Keels of paleas ciliate; annuals.....2
1. Keels of paleas not long ciliate; perennials.....4
 2. Panicle 2-10 times as long as wide, open, not spiciform..... *E. amabilis*
 2. Panicle 12-30 times as long as wide, spiciform.3
3. Panicles densely spiciform with branches 5-10 cm long; spikelets 6-12 flowered..... *E. ciliaris*
3. Panicles with short, closely ascending branches, not densely spiciform; branches 5 cm long; spikelet 2-3 mm long, 12-18 flowered..... *E. urbaniana*
 4. Panicle branches stiffly spreading; spikelet with pedicels 1.5-4 times as long as the spikelet itself *E. elliottii*
 4. Panicle lax; spikelets with pedicels shorter than the spikelet itself.....5
5. Panicle densely flowered; tufted plant; spikelets several times wider than thick..... *E. bahamensis*
5. Panicle open and sparsely flowered; culms 1-2 m tall..... *E. excelsa*

PALMAE

- 59 *Thrinax parviflora* → THRINAX RADIATA Lodd. ex J.A. & J.H. Schultes.

As stated before (Gillis, 1974a), *Thrinax parviflora* should be applied only to an endemic species of Jamaica. The thatch palm of South Florida often included within this name concept and to which B & M applied this name is now correctly *T. radiata* according to Read's latest treatment of *Thrinax* (1975), and not *T. floridana* as indicated earlier.

LILIACEAE

- 70 *Aletris bracteata* → ALETRIS FARINOSA L.

There appear to be no significant differences between the *Aletris* of the Florida Everglades and that of the adjacent northwestern Bahamas. In keeping with the treatment of Long and Lakela (1971) they are treated here as synonymous.

DIOSCOREACEAE

80 *Rajania microphylla* → RAJANIA HASTATA L.

The leaf shape in this species is highly variable, even on the same individual. It is evident that Kunth (author of the binomial *Rajania microphylla*) attributed species rank to populations with a different leaf shape from that of the classical Linnaean material. It is further evident that there is but one species in the Bahamas. On the other hand, after Britton and Millspaugh published the Bahama Flora (1920), Bahama variants were used to typify two additional names in *Rajania*: *R. bahamensis* Knuth and *R. urbaniana* Knuth, both based on J. & A. Northrop 203.

John and Alice Northrop spent a considerable period of time on New Providence and Andros Islands in the early 1890's. John Northrop paid especial attention to animals and geology, whereas Alice gathered extensive plant collections, the most thorough sampling of the Bahama flora to that date. Many of their specimens have been used to typify new species, some by Alice herself (1902), and others by Ignatius Urban in various volumes of his compendium of West Indian botany, the *Symbolae Antillanae*. The Northrops (actually only Alice) used great care in assigning collection numbers to their specimens. It is unusual, if not unique, that collection number 203 was used to apply to two different gatherings of a *Rajania*: one from Andros made in June 1890, and the other from New Providence on 25 January 1890. The two plants differ only in lobes of the leaf and are quite consistent with typical variation within a single species in nature. Both sprigs could indeed have come from the same individual. That they are different species is unthinkable.

The specimens available to Knuth when he assigned names to *Rajania bahamensis* and *R. urbaniana* were cited as being at Berlin. The holotypes escaped destruction in the World War II bombing of the Berlin Herbarium, and were examined by the author during a visit to Berlin this summer. Both are typical *Rajania hastata*. (See Fig. 1, 2).

In his treatment for Das Pflanzenreich, Knuth (1924) separated these species on staminate characters only: whether the inflorescence is 1 cm long or longer than 1.5 cm; whether the inflorescence rachis is filiform or capillaceous; and whether the inflorescence is manifestly flexuous or only somewhat flexuous. These obviously are not characters worthy of distinguishing species. Another anomaly associated with this *Rajania* is that Britton and Millspaugh attributed the binomial *R. microphylla* to Knuth whereas it should have been to R. Kunth. The following should characterize the pertinent data insofar as these names are concerned.



Fig. 1 - Holotype of Rajania bahamensis at Berlin Museum.



Fig. 2 - Holotype of Rajania urbaniana at Berlin Museum.

RAJANIA HASTATA L., Sp. Pl. Vol. 2: 1032. 1753.

Type: BM (Hort. Cliff.).

Rajania microphylla Kunth, Enum. 5: 451. 1870.

Type: B.

Rajania bahamensis R. Knuth, Notiz. Bot. Gart. Mus.

Berlin 7: 220. 1917.

Type: Bahama Islands, New Providence Island. *J. & A. Northrop* 203, pro parte, January 25, 1890.

Holotype: B; isotypes: NY, US, F.

Rajania urbaniana R. Knuth, Notiz. Bot. Gart. Mus.

Berlin 7: 220. 1917.

Type: Bahama Islands, Purser Point, Andros Island.

J. & A. Northrop 203, pro parte, June 1890.

Holotype: B; lectotypes: NY, US.

I wish to thank Dr. Bernice G. Schubert for her assistance in searching the literature for the Knuth citations.

CASUARINACEAE

100 *Casuarina equisetifolia* → CASUARINA LITOREA L.

By invoking Art. 42 of the International Code of Botanical Nomenclature, Fosberg and Sachet (1975) have found it necessary to accept the earlier binomial *Casuarina litorea* for the common Australian pine, a weed tree throughout Florida and the West Indies.

PIPERACEAE

101 *Peperomia spathulifolia* → PEPEROMIA OBTUSIFOLIA L.

Dr. William C. Burger, specialist in tropical American Piperaceae, has examined the Bahama materials of this species at the Field Museum and identified them as *P. obtusifolia*. This binomial, being the older, should be taken up and applied to the Bahama populations. I acknowledge appreciation to Dr. Burger for assisting in resolving this matter.

URTICACEAE

106 *Fleurya aestuans* → LAPORTEA AESTUANS (L.) Chew

In his revision of *Laportea*, Chew (1965) merged all *Fleurya* species into *Laportea*. This treatment is followed here for the few populations of this weed known from the Bahamas.

CHENOPODIACEAE

121 *Dondia fruticosa* → SUAEDA TORREYANA Wats.

121 *Dondia insularis* → SUAEDA CONFERTA (Small) Johnston

Recent work by C.O. Hopkins (1974) has shown that the *Suaeda* (*Dondia*) *insularis* of the southern Bahamas and the Turks

and Caicos Islands is the same as *Suaeda conferta* of Hispaniola. Dr. Hopkins (personal communication) elected to use *S. torreyana* for the New World species, choosing to differentiate a variable, but wide-ranging *S. fruticosa* in the Old World.

PORTULACACEAE

138 *Portulaca gagatosperma* → PORTULACA PILOSA L.

Portulaca gagatosperma → PORTULACA HALIMOIDES L. var.

HALIMOIDES

Millspaugh described the endemic species *Portulaca gagatosperma* for the purple-flowered, fleshy-leaved *Portulaca* populations in the Bahamas that have white tufts of hairs subtending the leaves and the inflorescences. As interpreted by Wilson (1932) and Legrand (1952) such populations do not fall into a species concept of an endemic species at all, but rather into that of two more wide-ranging species, *P. pilosa* and *P. halimoides*.

In effect, one replaces a putative endemic species by two widely-distributed ones. The type of *P. gagatosperma* is clearly *P. pilosa*, but Britton and Millspaugh applied the name to various populations of *P. halimoides* as well. Because these species are difficult to distinguish, the following table is presented as a means of making appropriate comparisons:

TABLE 1 - Contrasting characters of two species of *Portulaca*.

	<i>P. pilosa</i>	<i>P. halimoides</i>
Flower color	purple	yellow or white with yellow center
Petal length	7-10 mm	3-4 mm
Sepal length	3 mm	2-4 mm
Petal width	2.5-4.5 mm	1.2-1.3 mm
Habit	Creeping	Erect
Leaf blades	Oblong-lanceolate, flattened	Oblong-linear, subcylindric
Stamen number	15-35	8-20
Involucre	6-10 bracts	4-8 bracts
Capsule shape	Elongate or ovoid	Subglobose
Capsule diameter	3-4 mm	1.5-1.6 mm
Seed size	0.3-0.4 mm	0.4-0.5 mm

KEY TO BAHAMA PORTULACA SPECIES

1. Leaves greater than 5 mm broad, obovate to spatulate..... *P. oleracea*
1. Leaves less than 4 mm, elliptic to linear-lanceolate....2
 2. Flowers purple; plant creeping; sepals less than

- 3 mm; seeds 0.3-0.5 mm..... *P. pilosa*
 2. Flowers yellow; plant erect; sepals 2-4 mm;
 seeds 0.4-0.5 mm 3
 3. Petals 2.5-3 mm long; seeds black; cap of capsule elongate
 to onion-shaped; fruit base 1.5 mm in diameter
 *P. halimoides*
 3. Petals 5-7 mm long; seeds brown; cap of capsule flat,
 dome-shaped, fruit base 3 mm in diameter. *P. rubricaulis*

MENISPERMACEAE

142 *Cissampelos tomentosa* → CISSAMPELOS PAREIRA L.

In noting this name change, I am following the recent monograph of *Cissampelos* by Rhodes (1975).

LEGUMINOSAE

157 *Pithecolobium discolor* → PITHECELLOBIUM GLAUCUM Urban
 When Britton described *Pithecellobium discolor* (as *Pithecolobium*) in 1914, he chose a type from Batabano, Cuba (Shafer 161 at NY), but he also stated: "apparently the same species at Old Kerr's Point, Abaco, Bahamas (Brace 2017)." The Brace collection is the only one known from the Bahamas, to my knowledge. It compares favorably to *P. glaucum* and is presumably a wide disjunct from Cuba, possibly even introduced and perhaps not even persistent. Léon and Alain (1951) in the Flora of Cuba (vol. 2) indicated that both species exist as separate entities and that both occur in the Bahamas. The latter is impossible inasmuch as only one collection of this taxon is known from the Bahamas and it manifestly cannot be two things! I recognize *P. glaucum* to be the correct name for the population in the Bahamas if, indeed, it still occurs there. It should be noted also that *Pithecollobium* (sic) *discolor* Pittier (Contr. U.S. Natl. Herb. 20: 464. 1922) is a later homonym.

167 *Cassia bahamensis* → CASSIA CHAPMANII Isely

Isely (1975) has determined that Philip Miller's name *Cassia bahamensis* has been misapplied by a number of authors. The specimen so named in the Miller collections at the British Museum (Natural History) is probably *C. ligustrina*. The common plant of Dade and Monroe Counties, Florida and the West Indies required a new name which Isely supplied.

169 *Chamaecrista riparia* → CASSIA NICTITANS var. ASPERA (Ell.) T. & G.

Chamaecrista lucayana → CASSIA CARIBAEA Northrop

Chamaecrista inaguensis → CASSIA CARIBAEA Northrop

Earlier (Gillis, 1974a), I made a note of changes in nomenclature for the *Chamaecrista* section of *Cassia* in keeping with

current usage by Dr. Howard Irwin and his associates at the New York Botanical Garden in their monographic treatment of *Cassia*. At that time I noted that Adams (1970) had interpreted *Cassia riparia* as an illegitimate name and had published *Cassia caymanensis* to replace it. Since that time, however, I have had occasion to examine populations in the field and herbarium specimens of what Britton and Millspaugh formerly referred to as *Chamaecrista riparia*. They are correctly *Cassia nictitans* var. *aspera* [or *C. aspera* as in Long and Lakela (1971) and Isely (1975)] as are their counterparts in South Florida. They very well may have reached the Bahamas from Florida inasmuch as the species is found within the islands only on the Great and Little Bahama Banks adjacent to the Florida Straits.

Also, since my earlier publication, I have examined types and isotypes of the several other "endemic" *Cassia* species to which B & M referred in their flora. Table 2 notes comparisons of critical factors regarding the morphology of the type collections. The major differences, it will be noted, centered around the petiolar gland. Mr. Rupert Barneby informs me that, within certain broad limits, the structure and location of this gland is not diagnostic in separating species of *Cassia*. Studies in the field within the islands where these three "species" are reported (Crooked, Acklins, Mayaguana, Inagua, and the Turks and Caicos Islands) show no consistent breaks between normal variants to be expected within one species. Again we have, as mentioned earlier (Gillis, 1974b) examples of two "phantom" species in the Bahama flora, i.e., plant "species" that are really not different from another species.

Britton himself did not visit most of the far southern islands in the archipelago. Once again (see Gillis, 1974b), when Britton attempted to determine specimens which he did not see in the field himself, he tended to note differences more than similarities, and thus tended to overdescribe numbers of species in the flora.

The following should concisely state the situation in this *Cassia* complex:

CASSIA CARIBAEA Northrop, Mem. Torrey Bot. Club 12: 39 + pl. 6. 1902.

Type: Andros, Fresh Creek, *Northrop & Northrop 638*.

Holotype: F-130718; isotype: NY.

Cassia inaguensis Britton, Bull. N.Y. Bot. Gard. 3: 443. 1905.

Type: Inagua, near salt ponds, *Nash & Taylor 910*.

Holotype: NY; isotype: F-171399.

Cassia lucayana Britton, Bull. N.Y. Bot. Gard. 4: 138. 1906.

Type: Exuma Chain, cay north of Wide Opening. *Britton & Millspaugh 2774*. Holotype: NY.

TABLE 2 - Comparisons of characters from type collections of three Bahama "species" of *Cassia*.

	<i>Cassia</i> <i>caribaea</i>	<i>Cassia</i> <i>lucayana</i>	<i>Cassia</i> <i>inaguensis</i>
No. of leaflets	6-10	8-12	4-6
Tip of leaflet	Mucronate	Mucronate, slightly emarginate	Mucronate, slightly emarginate
Position of gland	Between second pair of leaflets	Below first pair of leaflets	Below each pair of leaflets
Venation prominence	Pronounced	Pronounced	Pronounced
Inflorescence	Single flower	Single flower	Single flower
Gland shape	Stalk with flattened top	Mushroom- shaped	Mushroom-shaped with crateriform top
Stipule shape	Linear	Linear	Linear-ovate, long acuminate
Breadth of flower	1.5 cm	Not present	1.5 cm
Leaflet Symmetry	Inequilateral	Inequilateral	Inequilateral
Fruit length	5-5.5 cm	4-6 cm	5 cm
Leaf pubescence	None	Scattered hairs, leaflet margin and base	None

I should like to express my appreciation to Dr. Howard S. Irwin and to Mr. Rupert Barneby for their critical reading of this portion of the manuscript and for sharing with me their interpretation of *C. nictitans* var. *aspera*.

188 *Bradburya floridana* → CENTROSEMA ARENICOLA (Small)
Hermann

Although this species may not occur in the Bahamas, it is more likely an endemic to central peninsular Florida. To occur there and have an extension into the Bahamas would prove to be a pattern that is not known for any other species. None of the specimens attributed by B & M to this species is anything more than a variant of *C. virginianum*. *Centrosema arenicola* has lanceolate upper calyx lobes with an appreciably longer lower lobe, pods 4.5-5.5 mm broad, seeds 3.5-5 mm long; *C. virginianum* has all lobes of the calyx linear-subulate and all lobes equal or subequal in length, pods 3.5-4 mm broad, and seeds 7.5-8 mm long.

The epithet *arenicola* has seldom been applied to the endemic Florida plant, yet antedates *floridana* by one year. We presently say that *C. arenicola* is absent from the Bahama flora. I gratefully acknowledge information on these species, especially in regard to the earlier name employed herein, from Dr. Daniel B. Ward who has amassed data for an ultimate flora of Florida. Dr. Ward has been kind in sharing with me a portion of his manuscript for the flora and granted permission for me to use such information herein.

EUPHORBIACEAE

223 *Croton bahamensis* → CROTON HUMULIS L.

When Millspaugh published the binomial *Croton bahamensis* (1909), he probably had checked with the *Index Kewensis* to see if this combination had ever been previously published, and found that it was not listed. Unfortunately, the combination was published by Hamilton (1825) but never picked up by the editors of the Kew Index. Millspaugh's name, therefore, is illegitimate. The species does not need a new name, however, because it matches well with *Croton humulis* of Cuba and should be considered conspecific with it. The type of *C. bahamensis* Hamilton is at Herb. Desv. (Paris) and is *Croton lucidus*.

237 *Chamaesyce burifolia* → CHAMAESYCE MESEMBRYANTHEMIFOLIA
(Jacq.) Dugand

It is unfortunate that this common seaside species of Florida, the West Indies, and Central and northern South America must have a name change, and further that the earliest epithet is one of twenty letters! Dugand (1966) recognized that this earlier Jacquin name (1760) does indeed have priority and applies to the plant in question, despite the fact that

neither an illustration nor a specimen appears to be available to typify it. The type is the description. Dr. Derek Burch (personal communication), specialist in *Chamaesyce*, agrees that this earlier name must be taken up despite his earlier (1966) use of *C. buxifolia*. The basionym is *Euphorbia mesembryanthemifolia*, but Dugand changed the first "i" to a "y": *mesembryanthemifolia*. The Code provides for the spelling *Mesembryanthemum* whereas *Mesembrianthemum* is philologically preferable. Hence, *mesembryanthemifolia*, having been derived from it, must also be preserved.

239 *Chamaesyce bracei* → CHAMAESYCE CAYENSIS Millsp.

In his preliminary treatment of West Indian *Chamaesyce*, Burch (1966) did not deal with synonymies except when he published new names. His not having dealt with *C. bracei* led me to pursue the question of what he had done with this binomial. All material (essentially only the type collection of *C. bracei* and one other B & M collection) of this name in the collections at NY have been annotated by Burch as *C. cayensis*. Thus, they do not appear to be separate species.

RHAMNACEAE

256 *Reynosia northropiana* → AUERODENDRON NORTHROPIANUM (Urb.) Urb.

Urban (1924) published the genus *Auerodendron* for the species formerly in *Reynosia* that did not have ruminant endosperm. Although it is possible that one could make a case for merging this species into *Reynosia* (as done by B & M) as a monotypic subgenus, I am for the moment treating it as a distinct genus.

CACTACEAE

291 *Cephalocereus millspaughii* → CEREUS BAHAMENSIS (Britton) Vaupel

291 *Cephalocereus bahamensis* → CEREUS BAHAMENSIS (Britton) Vaupel

In my search for differences between *C. millspaughii* and *C. bahamensis*, I found very little evidence that any exist, except as differences between individuals. To begin with, cacti are notoriously ignored by herbarium collectors because of the difficulties encountered in trying to prepare herbarium materials of a spiny succulent. I have studied populations of this genus in the field and also examined all materials in pertinent herbaria (A, F, GH, NY, US). Materials are notably sparse, but I have seen the type collections and have concluded that no significant differences exist between these two taxa. I therefore consider them to be conspecific. They are night-flowering with a fetid scent of decaying meat emanating from the open flowers. The use of *Cereus* instead of *Cephalocereus* reflects a tendency to unite some of the more

artificial genera in the Cactaceae.

CEREUS BAHAMENSIS (Britton in Britton & Rose) Vaupel, Montasschr.

Kakteenk. 23: 23. 1913.

Basionym: *Cephalocereus bahamensis* Britton in Britton & Rose, Contr. U.S. Natl. Herb. 12: 415. 1909.

Type: Berry Islands, Frozen Cay, Britton & Millspaugh 2221. Holotype: NY; isotype: F-173335.

Cereus millspaughii (Britton in Britton & Rose) Vaupel, Montasschr. Kakteenk. 23: 23. 1913.

Basionym: *Cephalocereus millspaughii* Britton in Britton & Rose, Contr. U.S. Natl. Herb. 12: 417. 1909.

Type: Exume Chain, Cave Cay, rocky scrubland, Britton & Millspaugh 2832.

Holotype: NY; isotypes: US-655733, US-474779.

ONAGRACEAE

309 *Isnardia repens* → LUDWIGIA REPENS Forst.

In keeping with trends of treatment within the Onagraceae, *Isnardia* is herein considered synonymous with *Ludwigia*.

VERBENACEAE

373 *Callicarpa hitchcockii* → CALLICARPA LANCIFOLIA Millsp.

Moldenke (1936) treated these two names as representing different species. The former had leaf blades obtuse at the apex, margins entire, and represented a much-branched shrub, occasionally scandent. The latter had leaf blades acute at the apex, margins minutely and irregularly crenate-denticulate, and represented a little-branched shrub. Populations in the Bahamas seem to show enough variation to encompass all of these characters, often on the same individual. Hence, I am treating them as synonymous, *C. lancifolia* being the older name.

SOLANACEAE

384 *Solanum blodgettii* → SOLANUM DONIANUM Walp.

In noting this name change, I am following the recent treatment of South Florida *Solana* by D'Arcy (1974).

APOCYNACEAE

337 *Rhabdadenia sagraei* → ANGADENIA SAGRAEI (A.DC.) Miers

Earlier (Gillis, 1974a) I recognized that *Rhabdadenia sagraei* of B & M was in fact an *Angadenia*, following Woodson (1936 and 1938). Since that time I have had occasion to examine type material of *Echites berterii* A.DC. and *E. sagraei* A.DC. at G. It appears that applying the epithet *berterii* to the species in the Bahamas is incorrect. The Bahama vine is



Fig. 3 - Type of Echites berterii DC., basionym of Angadenia berterii, at Jardin Botanique, Geneva.



Fig. 4 - Type of Echites sagraei DC., basionym of Angadenia sagraei, at Jardin Botanique, Geneva.

Angadenia sagraei (see fig.). Lippold in his recent appraisal of *Angadenia* in Cuba (1975) concurs with this interpretation.

COMPOSITAE

453 *Sachsia bahamensis* → SACHSIA POLYCEPHALA Griseb.

In order to evaluate the status of the four described species of *Sachsia* in South Florida, the Bahamas, and the Greater Antilles, one may turn to Badillo's recent (1975) revision of the genus. It appears that the genus is monotypic and that previously described additional names simply represent varying degrees of robustness.

453 *Bidens pilosa* → BIDENS ALBA var. RADIATA (Schultz-Bip.) Ballard ex Melchert

The common weed of South Florida, the Bahamas, and Mexico, known as "Spanish needles" has had a number of names. Sherff (1937 and 1955) treated it as *Bidens pilosa* var. *radiata*. More recently Ballard (1975), on both chemotaxonomic and morphological grounds, has determined that these populations are part of the *Bidens alba* complex. Publication of the combination was in Melchert (1975).

457 *Emilia sonchifolia* → EMILIA FOSBERGII Nicolson

Earlier (Gillis, 1974a and Gillis and Proctor, 1975) we noted that the only *Emilia* in the Bahamas is *E. javanica*. Since that time Nicolson (1975) has found that the taxon known variously as *E. coccinea* or *E. javanica* (among other names) is actually three species, one of which was unnamed. The latter was described as *E. fosbergii*. In describing the new species -- the only *Emilia* now known from the Bahamas -- Nicolson chose a type specimen from the Bahamas: *Curtiss 6*, which is represented in a number of herbaria. The red-flowered *Emilias* in the Neotropics may be distinguished as follows (after Nicolson):

Flowers orange-red, half enclosed by involucre;
leaf margins entire or shallowly-dentate; corolla
lobes 1.7-2.1 mm long..... *E. coccinea*

Flowers red, 3/4 enclosed by involucre; leaves
coarsely dentate; corolla lobes 1.2-1.4 mm long
..... *E. fosbergii*

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